1.0 PURPOSE OF AND NEED FOR PROJECT

1.1 PROPOSED ACTION

The proposed action will construct Route 905 from Interstate 805 (I-805) to the Otay Mesa Port of Entry (POE), a distance of approximately 10 kilometers (6.2 miles). In addition, it will construct a 1.7 kilometer (1.1 mile) portion of northbound (NB) I-805 to the I-805/Palm Avenue Interchange. The Route 905 project limits encompass the Siempre Viva Road interchange project, which was approved for construction under a separate environmental review. The general purpose of the Route 905 project is to:

- reduce congestion,
- provide for the effective transportation of people, goods and services, and
- improve the mobility of local, regional, interregional, and international traffic.

Extending the existing Route 905 will provide congestion relief to Otay Mesa Road (the only major East-West road currently servicing Otay Mesa) and will allow direct access to the existing I-805 and I-5 freeways. Six build alternatives were considered:

1. Freeway - North Alignment Alternative,

2. Freeway - Central Alignment Alternative (the Preferred Alternative),

3. Freeway - South Alignment Alternative,

4. Tollway - North Alignment Alternative,

5. Tollway - Central Alignment Alternative, and

6. Tollway - South Alignment Alternative.

Chapter 2 provides the identification rationale for the Preferred Alternative.

The No Build Alternative was also considered.

Figure 1-1 shows the Project Location. Figure 1-2 shows the Project Vicinity.

1.2 NEED FOR ACTION/EXPECTED BENEFITS

There are several existing transportation needs in the Otay Mesa area of San Diego County. These have led to inadequate transportation service which will continue to deteriorate if the proposed project is not constructed. Otay Mesa Road (OMR) was widened from a four-lane city street to a six-lane conventional highway to increase traffic capacity, however, it will reach its capacity by the year 2005. Therefore, a new facility is needed to:

- improve traffic capacity for growth beyond the year 2005,
- serve the POE,
- serve the extensive development on the Mesa (both existing, and approved planned development),

- complete the regional highway system to cope with the increasing regional and international trips, and
- provide traffic congestion relief for OMR and an alternative commercial traffic access route to the POE.

The POE is the only commercial truck crossing between Mexico and San Diego. The project will bypass the developments and airport along OMR, allowing Route 905 to function better. Route 905 is expected to reduce the accident rate in the Otay Mesa area by 50%.

Improving Traffic Capacity

Capacity, at a given Level of Service (please refer to Section 1.6 for a definition of Level of Service), is the maximum traffic rate at which a highway can operate at that Level of Service (LOS). The extension of Route 905 will improve capacity by providing the following:

- The addition of alternate uninterrupted flow lanes through the corridor.
- Maximum grades will be reduced from 5.7% to 4%.
- The number of signalized intersections in the existing corridor (OMR) is eleven; the Freeway and Tollway alignment alternatives will have zero.
- Average operating speeds during the peak traffic hour will increase in the corridor, as shown in Table 1-1 in kilometers per hour (kph) and miles per hour (mph).

Table 1-1
OPERATING SPEEDS

	Route 905: kph (mph)		**Otay Mesa Road: kph (mph)**	
ROUTE 905 Alignment Alternatives	Opening Year	2025	Opening Year	2025
Six Lane Freeway	90 (55)	82 (50)	31 (20)	24 (15)
Six Lane Tollway	90 (55)	82 (50)	31 (20)	24 (15)
No Project	-	-	23 (15)	13 (8)

Capacity of the current highway (the new six-lane OMR/ Route 905/Interim Route 905) is affected by the following factors:

- High truck volumes. The San Ysidro commercial port of entry station was closed in December of 1994. All commercial truck traffic is now routed to the POE, causing the truck traffic on OMR to increase to more than 15% of the total traffic volume.

- Grades. Steep and sustained grades (up to 5.7%) affect truck speed and overall highway capacity.

- Spacing and timing of traffic signals. Signals play a major role in the capacity of OMR by limiting the portion of time that is available for movement along the facility through intersections. There are eleven signalized intersections between Heritage Road and the POE, and five more are forecast for development by the year 2020.

- Operating speed. Posted speed limits range from 70 km/h (45 mph) to 80 km/h (50 mph). Traffic congestion, however, limits the operating speed during the peak traffic hours. Projected operating speed for OMR in 2025 is forecast to be 13 km/h (8 mph), assuming a new facility is not built.

- Traffic Volumes. The 2003 Average Daily Traffic (ADT) volumes for the segments of OMR are presented on Table 1-4. According to the City of San Diego thresholds, OMR is currently operating at an unacceptable LOS (LOS E and F) from I-805 to Britannia Boulevard. Table 1-6, which presents the year 2025 local street comparison, shows that most segments along OMR under the No Project column would operate at LOS F, which is unacceptable. The proposed Freeway and Tollway alignment alternatives will improve the projected LOS along OMR.

Safety

The transfer of trips from a city street to a regional highway is expected to reduce accidents on the city streets. Between October 19, 1997 and November 17, 2000, a total of 92 accidents were recorded along OMR, summarized as follows:

- Of the 92 accidents, 59 occurred in intersection areas. Of the intersection accidents, rear-end accidents accounted for 54%, right-angle accidents accounted for 22%, and sideswipe accidents for 10%.

- There were 67 accidents with injuries.

Intersection locations have a higher potential for traffic conflict compared to other highway sections. At an intersection, continuity of traffic is interrupted, traffic patterns cross, and turning movements occur. The types of accidents noted above are typical of intersection accidents. The proposed project will allow through traffic to avoid the intersections on OMR by including grade separations, thereby reducing traffic conflicts and improving safety while greatly increasing the capacity of the Route 905 corridor.

Table 1-2 depicts existing accident rates per million vehicle miles. The table contrasts accident rates, for the different sections of the existing corridor, versus the average rate for similar facilities throughout the state. The accident rates for the existing facility are less than the rates on similar facilities in the state. The reason the actual accident rates are lower than on similar facilities likely relates to the extremely high traffic volumes on OMR. Most similar facilities carry far lower volumes, which will result in higher accident rates, given the same number of accidents. The fact that the actual rate is lower than similar highway facilities in no way diminishes the importance of the accident reduction that the construction of Route 905 will provide to the Otay Mesa area.

Table 1-2
UNCONSTRUCTED ROUTE 905COMPOSITE ACCIDENT RATES
ACCIDENT RATES (JANUARY 2000 - MARCH 2004)

Section	Length	MVM	Rates (/MVM)			Rates (/MVM)		
			Actual			Similar Facilities		
			Fatal Accidents	Fatal + Injury Accidents	Total	Fatal Accidents	Fatal + Injury Accidents	Total
I-805 to OMR	1.39	84.01	0.012	0.15	0.33	0.013	0.53	1.38
OMR to Heritage Rd	1.29	54.18	0.018	0.074	0.092	0.015	1.00	2.20
Heritage Rd to La Media Rd	2.01	79.97	0.000	0.76	0.76	0.015	1.00	2.20
La Media Rd to SR-125	0.745	22.70	0.000	0.35	0.35	0.015	1.00	2.20
SR-125 to Border	1.303	43.83	0.000	0.32	0.41	0.017	0.600	1.65
Total	6.738	284.74	0.007	0.349	0.419	0.015	0.80	1.873

MVM……Million Vehicle Miles
Fatal Accidents……..…Fatal Accidents/MVM
Fatal + Injury Accidents…...Fatal Accidents + Injury Accidents/MVM
Total….…….Total Rate

1.3 PROJECT HISTORY AND BACKGROUND

Route 905 is legally defined in the 1996 State Statutes to be part of the Statewide System of Freeways and Expressways from Route 5 near the south end of San Diego Bay to the international boundary southerly of Brown Field. Under the State Highway System criteria, Route 905 is defined from the international boundary near Border Field northeasterly to Route 5, and from Route 5 near the south end of San Diego Bay to the international boundary southerly of Brown Field.

Route 905 is part of the National Highway System (NHS). The purpose of the NHS is to provide an integrated national highway system that serves both urban and rural areas; to connect major population centers, international border crossings, ports, airports, public transportation facilities, and other major destinations; and to meet national defense requirements.

The portion of Route 905 from the international boundary near Border Field Park to west of I-5 is not adopted nor constructed, but is recommended for further study. From west of I-5 to I-805, a four-lane freeway plus auxiliary lanes with interchanges at I-5 and I-805 has been constructed. The four-lane access-controlled freeway with auxiliary lanes continues easterly from I-805 to the junction with OMR. In October 2001, OMR, between the Route 905 access controlled freeway and Interim Route 905 (see below), was adopted by the California Transportation Commission as "Traversable State Route 905." Right-of-way, maintenance, and operation of this portion of Route 905 was transferred to the State on August 30, 2002. Traffic continues on OMR as an east-west conventional highway, the only access to/from the Otay Mesa POE.

The California Highway Commission adopted a freeway route in 1965, then known as Route 75, that extended from I-5 to approximately 1.3 kilometers (0.8 miles) east of La Media Road on Otay Mesa, in the City of San Diego (City). Figure 1-3 shows the Route Adoption maps. Between 1969 and 1972 three freeway agreements were executed with the County of San Diego (County) and City covering most of the adopted route as follows:

- Heritage Road to future Route 125, January 2, 1969,
- Beyer Blvd. to 1.2 miles east of I-805, March 27, 1969,
- 1.2 miles east of I-805 to Caliente Avenue, May 23, 1972.

In 1973, Route 75 was re-designated Route 117. A four-lane freeway segment from I-5 to I-805 was constructed within the adopted route, and opened in 1976. In 1987, the route was changed to Route 905.

A four-lane highway segment connects OMR, at KP 16.8 (PM 10.4), east of La Media Road to the POE, at KP 19.2 (PM 12.0). This segment of conventional highway was originally adopted as Route 125 in March 1983. It was constructed under a Memorandum of Agreement (MOA) between the Department, the County, and the City, and was adopted into the State Highway System upon completion in 1985. The City maintained this segment of highway, now designated as Interim Route 905, until August 1, 1990, when ownership of the facility was vested in the State per the MOA.

In October of 1991, a Department Project Study Report (PSR) for Route 905 was approved. That study addressed the adopted portion of the route from I-805 to the POE. The PSR presented a single design variation for Route 905 and a freeway to freeway interchange with Route 125. This document included coordination with the local and regional planning documents, confirming this major circulation element in the land use planning for Otay Mesa. The PSR concept for Route 905 was an initial six-lane freeway with a wide median for an ultimate freeway with ten lanes. Since 1993, on-going meetings have taken place with various agencies and local community organizations. Details are provided in Chapter 6.0, Coordination and Consultation.

1.4 TRANSPORTATION PLANS

State Plans

The 1996 Caltrans District 11 System Management Plan (SMP) was developed to plan the implementation of the region's transportation system, which could best accommodate the region's growth in population and travel. The strategy developed includes the Inner Loop Element and the Outer Loop Element. Route 905 is part of the Outer Loop with Routes 8, 52, 54, 56, 67, and 125, as shown on Figure 1-4. The Outer Loop will allow traffic to bypass the metropolitan area and serve as an alternate for interregional traffic on existing Route 67, I-8, I-15, and I-805, which are functioning at or near capacity. The proposed project is a connecting link in the Outer Loop. Route 905, Traversable Route 905 (OMR), and Interim Route 905 form the principal east-west route serving traffic between the rapidly developing Otay Mesa community/POE area and destinations to the north via I-5 and I-805.

The Caltrans Route 905 Transportation Concept Report (September, 1994 TCR) presents the State Highway facilities needed to serve traffic for the year 2015. The TCR is composed of two parts; (1) a minimum Level of Service (LOS) for peak hours, and (2) a description of the physical facility necessary to provide that LOS. Additional components of the 2015 Transportation Concept include implementation of an intermodal approach, using Transportation Systems Management (TSM), Transportation Demand Management (TDM), Transportation Control Measures and Air Quality improvement tactics. The 2015 Route 905 Transportation Concept provides the number of lanes needed based on a minimum LOS of "E." A new TCR for Route 905 is currently under development. The proposed facility type information in the new TCR is expected to be consistent with the proposed facility type in this FEIS/FEIR.

Regional Plans

The San Diego Association of Governments (SANDAG), designated as the Regional Transportation Planning Agency, prepares and periodically updates the following two regional transportation planning documents.

The Regional Transportation Plan (2030 RTP): adopted on March 28, 2003 by SANDAG, it describes Route 905 as a proposed six-lane freeway from I-805 to the Otay Mesa Border Crossing under the Revenue-Constrained Plan (RCP). The RCP includes those projects that could be implemented based on funding reasonably expected to be available during the 30-year plan period without requiring any future legislative actions or voter approvals to raise the gas and sales taxes, or to provide any additional revenues. The RCP is phased in three periods: Fiscal Year (FY) 2002-2010, FY 2011-2020, and FY 2021-2030. Route 905 is included in the FY 2011-2020 period with a total project cost of $290 million. The RTP also includes those projects that could be implemented under the Reasonable Expected Revenue Plan. This section of the RTP has scheduled the construction of Route 905 in the 2002-2010 period. According to the 2030 RTP, the actual scheduling of the projects is done biennially through the Regional Transportation Improvement Program (RTIP) development process. The 2030 RTP does not include the Tollway Alignment Alternatives.

The Department's current Route 905 schedule shows right-of-way acquisition beginning in the 2004/2005 FY, with construction starting in FY 2005/2006. Preliminary construction cost estimates are provided in Chapter 2, Section 2.8.2.

The Regional Transportation Improvement Program (2002 RTIP): adopted on June 28, 2002 by SANDAG, it is a multi-year program of regional transportation improvements for major state highway, local street and road, transit, and non-motorized projects. The 2002 RTIP covers the fiscal years 2003-2007. This document allocates a total of $236 million for the Route 905 project. The proposed project is included as a six-lane freeway.

1.5 SOCIAL DEMANDS/ECONOMIC DEVELOPMENT

SANDAG is the agency responsible for regional planning in the area. SANDAG Series 8 Regional Population and Employment Forecast anticipates an increase in population in the San Diego Region from 2.5 million people in 1990 to 3.6 million people in 2015. This represents a 45% increase, which will create a demand for additional housing, employment, and public facilities. Complementary land use and transportation improvements will be required. According to the

SANDAG Series 8 Regional Growth Forecast, the Otay Mesa population will experience a remarkable increase, expanding at an average annual rate of 19% between 1990 and 2015.

The City of Tijuana has had a population growth rate twice that of the San Diego region, with a current population over one million. Tijuana's population is projected to increase to 3.2 million people by the year 2015, which will have an effect on the transportation needs within the South Bay and San Diego region. Thousands of residents of Tijuana travel daily to the United States to work or shop, resulting in extensive cross-border movement of people to and from the San Diego region. Rapid development in the area is also partly due to the establishment of a five-site Foreign Trade Zone in Otay Mesa and the proximity to the Maquiladora manufacturing/assembly industry just across the border in Mexico.

The Otay Mesa community and Tijuana have experienced rapid growth since 1980. This growth has been stimulated by the change of land use from thousands of acres of farmland to the current land use designation of industrial/commercial and residential. Otay Mesa has been designated by the City of San Diego to be a primary industrial and commercial center for the County of San Diego. Development plans for Otay Mesa include approved subdivision maps for 900 hectares (2,200 acres), with approved building permits for over 280,000 square meters (three million square feet). There are nine residential precise plans that comprise 730 hectares (1,800 acres) and propose more than 10,000 dwelling units. A list of approved development plans and proposals is provided in Appendix C.

The North American Free Trade Agreement (NAFTA) was ratified by Canada, Mexico, and the United States in 1993 and became effective January 1, 1994. NAFTA eliminates all tariffs on goods traded among the three countries, either immediately or over five, ten, or in some limited instances fifteen, years. The California Office of Planning and Research projected that the total trade between California and Mexico will expand to $116 billion in 2015. NAFTA increases Otay Mesa's development possibilities and opportunities, making the area attractive locally, nationally, and internationally. Route 905 will provide direct access to Otay Mesa's existing and future planned and approved major employment centers as a regional transportation link for its industries.

The enactment of NAFTA, the passing of Tijuana's $171 million infrastructure improvement ballot initiative, the opening of the U.S. Commercial Inspection Facility on Otay Mesa, and the lifting of a building moratorium in the Otay Mesa area by the City of San Diego have accelerated the need to extend the Route 905 facility. OMR currently serves up to 55,000 vehicles per day (including 15 percent commercial trucks) on the segment west of Heritage Road.

Modal Interrelationships

The relationships between Route 905 and other modes of transportation (such as rail, air and bicycle facilities) will be maintained. A new northbound commercial vehicle enforcement facility (CVEF) has been constructed at the POE. The Freeway and Tollway alignment alternatives will provide a designated truck route from Enrico Fermi Drive, near the CVEF, to Route 905.

Brown Field, a commercial airport providing private aircraft services, is located to the north of the Route 905 corridor, and is accessible from OMR. It is the third-busiest general aviation airport in San Diego County, with annual operations of 141,122 flights (2002). Brown Field-based aircraft number 175 (2002). There has been an average increase in the annual flight operations of 11% for

the last four fiscal years. The proposed project will improve the accessibility of this general aviation airport.

Alternative transportation improvements are planned for future development in the Otay Mesa Area. Local plans address these alternative transportation modes. Bicycle storage lockers will continue to be provided at trolley stations through the SANDAG Ride Link Program. The Otay Mesa Community Plan proposes that bikeways be incorporated into future developments. An existing Class II bikeway (a striped lane for one-way bike travel) extends along OMR and along Interim Route 905, and provides bicycle access through the corridor. All of the proposed alignment alternatives eliminate this existing bikeway along Interim Route 905, from OMR to the POE. The bikeway, instead, will be extended along OMR to Sanyo Avenue, then south to Heinrich Hertz Drive and Paseo De Las Americas to Siempre Viva Road. These local streets are shown on Figure 4-3C.

Transit Operations

Existing

Transit bus Route 932 connects the San Ysidro Port of Entry to downtown San Diego. Bus Routes 933 and 934 run east and west along Palm Avenue, and along Coronado Avenue, west of I-805. Bus Route 905 connects the Iris Avenue trolley station to the San Ysidro Port of Entry. This route runs from Iris Avenue along OMR, south along Brittania Boulevard, east along Airway Road, south on La Media Road, east on Siempre Viva Road to Route 905, east on Airway Road, and south on Paseo de las Americas to the San Ysidro Port of Entry. The San Diego Trolley has stops at Iris Avenue, Beyer Boulevard, and the San Ysidro Port of Entry. Trolley stations provide bicycle storage facilities in conjunction with the SANDAG Ride Link Program.

Future

Two plans are described in the 2030 RTP:

a) *The Revenue Constrained Plan* is limited to existing funding sources and funding levels. The plan includes one new express bus corridor to connect Otay Ranch (immediately north of the project study area) and the POE.

b) *The Preferred Plan* provides greater mobility within the region but requires new, substantial financial resources. Within the project limits, two projects are proposed by others: 1) a Light Rail Transit (LRT) corridor from the POE along OMR and also along the Route 125 corridor, and 2) an Express Bus route along the Route 905 corridor.

The Metropolitan Transit Development Board (MTDB) prepared a conceptual plan for a local bus loop route to link the light rail/regional bus transfer facility to the planned industrial land uses on Otay Mesa. Regional bus stops are planned to be located near the ramp terminals of planned freeways. In the long term, light rail transit is planned to serve Otay Mesa from existing service in Chula Vista and San Ysidro. This planned north-south line will operate along the Route 125 alignment to the POE, and the planned east-west light rail line from Iris Avenue to the POE will operate adjacent to OMR (East Otay Mesa Specific Plan, July 1994).

No funding sources have been identified or committed for the planned regional bus, light rail lines, or the local bus loop service at this time (East Otay Mesa Specific Plan, July 1994). The Route 905 extension will not constrain development of these or other modes of transportation.

The 2030 RTP addresses both short- and long-range transit services and facility improvements, including a new South Bay LRT line serving the Otay Ranch area and connecting to the POE, and a transit-way along the Route 905 corridor for the year 2030 transit plan. A transit-way is a high level regional bus service.

1.6 TRAFFIC/LEVEL OF SERVICE

Results from the most current planning assumptions project that the forecast traffic volumes shown in this chapter will not actually occur until 2030 or later, and also show that the Preferred Alternative in the Route 905 FEIS/FEIR is sufficient to handle the projected ADT and peak hour volumes for 2025-2030.

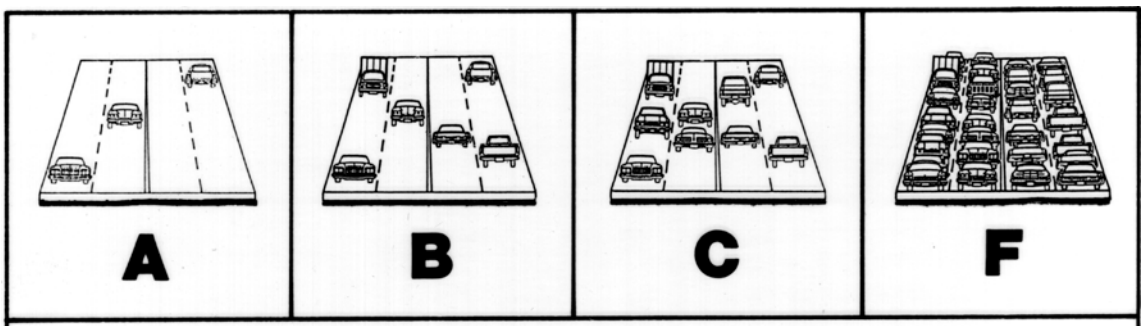
Traffic circulation issues associated with the proposed project are the basis for the development of the project design. The discussion below is based on the detailed Transportation Analysis Technical Report (TATR) for Route 905, which analyzes conditions for street segments, peak hour intersections, and freeway segments, using existing traffic counts and forecast data for the year 2000, and the year 2020. The TATR traffic volumes data was updated from the DEIS/DEIR to take into account the changes in the City of San Diego Circulation Element of the General Plan dated November 1999.

The year 2025 was the design year for this project. The traffic volumes shown in the TATR were originally forecast for 2020. Those volumes were reviewed to determine the adjustment necessary to update the forecast to 2025 volumes. After review of the latest SANDAG model, and noting that the actual volumes for 2000 were less than forecast in the TATR, it was determined that the volumes in the TATR originally for 2020 could, conservatively, be used as an estimate for 2025.

LOS is determined for each type of facility based on the number of lanes and the peak hour volume of traffic on that facility. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations from A to F, with LOS "A" representing the best operating conditions, LOS "F" the worst. Each LOS represents a range of operating conditions.

LOS is illustrated in Table 1-3; further definitions are provided in Appendix H.

Table 1-3
LEVEL OF SERVICE



A	Highest quality of service. Free traffic flow, low volumes and densities. Little or no restrictions on maneuverability or speed. 55+ mph. No delay.
B	Stable traffic flow, speed becoming slightly restricted. Low restriction on maneuverability. 50 mph. No delay.
C	Stable traffic flow, but less freedom to select speed, change lanes, or pass. Density increasing. 45 mph. Minimal delay.
D	Speeds tolerable but subject to sudden and considerable variation. 40 mph. Minimal delay.
E	Unstable traffic flow with rapidly fluctuating speeds and flow rates. Short headways, low maneuverability, and low driver comfort. 35 mph. Significant delay.
F	Forced traffic flow. Speed and flow may drop to zero with high densities. Less than 25 mph. Considerable delay.

Design capacity, for a given LOS, is the maximum traffic rate of flow for which a highway can provide that level of service. Design capacity varies with a number of factors, including: LOS selected, width of lanes, number of lanes, presence or absence of shoulders, grades, horizontal alignment, operating speed, lateral clearance, side friction generated by parking, driveways, intersections and interchanges, and volumes of trucks, buses, recreational vehicles, bicycles, and pedestrians.

Current Traffic Volumes and LOS

Table 1-4 shows the existing weekly traffic counts in terms of existing average daily traffic (ADT) volumes and LOS. ADT is the average number of vehicles using a roadway in one day. Table 1-4 reflects the six-lane OMR facility, with traffic in both directions.

Table 1-4
2003 AVERAGE DAILY TRAFFIC VOLUMES

LOCATION	ADT	LOS
I-805 to Old OMR	54,000	D
Old OMR to Heritage Rd	55,000	E
Heritage Rd to Britannia Blvd	52,000	E
Britannia Blvd to La Media Rd	44,000	C
La Media Rd to Future Route 125	42,000	F
Future Route 125 to Airway Rd	32,000	D

The City of San Diego thresholds were applied to all street segments on OMR. As can be observed, OMR is operating at LOS "E" between Old Otay Mesa Road and Britannia, and at LOS "F" between La Media Road and Future Route 125. All other road segments are presently operating at a LOS "C."

In addition to the average daily volumes for street segments, both A.M. and P.M. peak hour intersection traffic data were collected. SANDAG's Congestion Management Program (CMP) technical guidelines were used to establish the LOS goal (LOS "D"). The operational analysis method was used for intersection peak hour analysis. Operational analysis determines the LOS based on vehicle delay expressed in seconds. Computer analysis was used. The intersection of OMR and Heritage Road in the P.M. peak does not conform to the CMP goal; it is LOS "F," below the LOS "D" goal. All other intersections are currently operating at a LOS "D" or better.

Based on the above information, the capacity of the present facility is inadequate .

On June 7, 2004, the United States Supreme Court overruled the 9th Circuit Court of Appeal on the Mexican truck's case, *US DOT v. Public Citizen,* essentially holding that the President may open the border at any time without Federal Motor Carrier Safety Administration having to first prepare an Environmental Impact Statement. At this time, it is unknown what impact, if any, this would have on the Route 905 Project other than an increased number of trucks may be allowed to cross into the United States sooner than later.

Forecast Traffic Volumes (Year 2025)

Results from the most current planning assumptions project that the forecast traffic volumes shown in this chapter will not actually occur until 2030 or later. They also show that the Preferred Alternative in the Route 905 FEIS/FEIR is sufficient to handle the projected ADT and peak hour volumes for 2025-2030.

The design year for the proposed project is 2025. The traffic model provides forecasts of traffic volumes for the Year 2025. The selected facility will be designed to meet these volumes. Figures 1-5 through 1-8 show the traffic circulation network for the area, with traffic volumes (all alignment alternatives, and the no build alternative).

Table 1-5 shows forecast traffic for project alignment alternatives for the year 2025. The analysis was based on the SANDAG Series 8 traffic forecasting methodology and land use information, modified to reflect the latest revisions to the City of San Diego Circulation Element. The LOS

calculations were modified from those shown in the DEIS/DEIR to conform to the procedures shown in the current Highway Capacity Manual.

The 2025 ADT volumes for the proposed Route 905 project alternatives are 10%-15% higher than the latest 2030 ADT volumes from SANDAG's current regional transportation model. The traffic volumes from the preliminary 2030 Cities/County Forecast are based on the latest approved SANDAG land use data and forecasts, which are developed in coordination with the region's 18 cities and the County of San Diego.
In developing the land use forecast for the Route 905 project, the Department, SANDAG, County of San Diego, and the City County of San Diego agreed to use a combination of what was at that time the City and County of San Diego's build out land use, which was estimated to occur by approximately 2040, and SANDAG's Series 8 land use forecast, which had a horizon year of 2015. To develop the 2025 ADT volumes for the Route 905 project, the volumes forecast for 2000 were averaged by the Series 8 1990 base land use and the City of San Diego's 2040 volumes build out land use.

An analysis of the ADT growth on Route 905 from 1991 to 2003 was performed, which showed a decline in the ADT growth rate during that period. That analysis also showed that volumes previously forecast for year 2000 were realized in 2002. In addition, preliminary modeling results from SANDAG's 2030 City's/County's forecast confirm a reduction in the previously observed ADT growth rate over the next 25 years.

Furthermore, the SANDAG Series 8 travel demand model did not have programmatic methods by which TSM/TDM strategies could be accounted for within the regional model. Since that time, new methods have been developed both in the 2030 City's/County's forecast (Series 10), and the previous SANDAG 2020 forecast (Series 9), which apply these strategies within a travel demand modeling context on a regional basis.

Year 2025 Freeway Alignment Alternatives

The freeway scenario provides for Route 905 as a six-lane facility. Traffic volumes are predicted to increase substantially between opening day and the design year. All freeway segments in Table 1-5 are projected to operate at a LOS "E" or better for the year 2025. Design guidelines recommend that freeways in urban areas accommodate the design year traffic (2025) while operating at LOS "E" or better.

Year 2025 Tollway Alignment Alternatives

The tollway scenario also provides for Route 905 as a six-lane facility. Due to toll collection, traffic volumes are predicted to be substantially less than the 2025 Freeway scenario. All tollway segments (Table 1-5) are projected to operate at LOS "E" or better for the year 2025 forecast traffic.

Table 1-5
FORECAST TRAFFIC VOLUMES: 2025 FREEWAY AND TOLLWAY ALIGNMENT ALTERNATIVES

Segment	2025 (DESIGN YEAR)					
	Freeway Alignment Alternatives			Tollway Alignment Alternatives		
	Lanes	ADT	LOS	Lanes	ADT	LOS
I-805/Caliente Ave	7*	151,200	D	7*	144,300	D
Caliente Ave/Heritage Rd	6	153,500	E	6	146,300	E
Heritage Rd/Britannia Blvd	6	140,200	D	6	132,700	D
Britannia Blvd/La Media Rd	6	129,400	D	6	124,800	D
La Media Rd/Route 125	6	96,600	C	6	88,100	B
Route 125/Airway Rd.	8*	77,800	B	8*	77,000	B

Lanes = Total number of lanes in both directions.
ADT = Average Daily Traffic
LOS = Level of Service
7*= 6-Lane + 1 westbound auxiliary lanes between Caliente Ave. and I-805
8*= 6-Lane + 2 auxiliary lanes between Siempre Viva Road and Route 125

Local Streets

Table 1-6 shows local street segment traffic forecasts, for all alignment alternatives, for the year 2025. Table 1-6 includes ADT volumes as well as LOS. Forecast traffic volumes will substantially increase along the Otay Mesa corridor. Border crossing between San Diego County and Mexico will increase as development and international trade increases. The project will provide additional vehicle capacity for these demands.

Year 2025 Freeway Alignment Alternatives: when compared to the Tollway and No Build alternatives, the freeway alternative will handle more traffic on all segments of the new facility. As a direct result of the projected high freeway usage, all segments of the local street network (as shown on Table 1-6) between Caliente Avenue and Route 125 will have excellent LOS (LOS "A" to LOS "C") with minimal traffic congestion and delay.

Year 2025 Tollway Alignment Alternatives: although this scenario incorporates the same design features as the Freeway scenario, toll collections will discourage, to some extent, the use of the tollway, and would slightly increase the regional and international traffic on the local street system, as indicated in Table 1-6.

Table 1-6
YEAR 2025 STREET SEGMENT COMPARISON-EAST/WEST STREETS
FREEWAY AND TOLLWAY ALIGNMENT ALTERNATIVES

Street	Segment	2025 (DESIGN YEAR)					
		Freeway Alignment Alternatives		Tollway Alignment Alternatives		No Project	
		ADT	LOS	ADT	LOS	ADT	LOS
Otay Mesa Road	Old OMR/ Caliente Ave.	1,900	A	2,100	A	81,700	F
	Caliente Ave./ Heritage Rd.	18,500	A	19,600	A	71,600	F
	Heritage Rd./ Britannia Blvd.	14,300	A	15,800	A	66,100	F
	Britannia Blvd./ La Media Rd.	15,100	A	15,900	A	65,700	F
	La Media Rd./ Route 125	38,000	C	38,500	C	70,700	F
	Route 125/ Enrico Fermi Dr.	39,000	C	40,100	C	61,300	F
Airway Road	Caliente Ave./Heritage Rd.	10,400	A	11,500	A	56,800	F
	Heritage Rd./ Britannia Blvd.	8,500	A	8,800	A	44,000	F
	Britannia Blvd./ La Media Rd.	13,500	A	13,300	A	33,800	D
	La Media Rd./ Route 905	11,000	A	10,900	A	28,400	C
	Route 905/ Enrico Fermi Dr.	12,000	A	11,800	A	31,000	D
Siempre Viva Road	I-805/ Caliente Ave.	10,400	A	11,500	A	56,800	E
	Heritage Rd./ Britannia Blvd.	18,400	A	20,900	A	47,300	C
	Britannia Blvd./ La Media Rd.	20,800	A	22,600	A	45,900	C
	La Media Rd./ Route 905	16,600	A	18,100	A	41,200	C
	Route 905/ Enrico Fermi Dr.	50,500	D	51,200	D	58,100	E

Year 2025 No Project: the No Project Alternative assumes that Route 905 will not be constructed. Future traffic will utilize local streets to access the project area. Ten out of 16 segments on local streets (as shown on Table 1-6) are projected to operate between LOS "E" and LOS "F" with substantial congestion and considerable delay.

Local Access and Local Street Improvements.

The proposed project will need to fit into the local street system, and some work on local roads will be necessary to improve traffic flow. The local access ramp to Enrico Fermi Drive, as described in Chapter 2, is a critical element of the proposed Route 905/Route 125 interchange. It will facilitate access for trucks traveling north from the Commercial Vehicle Enforcement Facility at the border. It will provide an additional direct access for the East Otay Mesa area, thereby reducing congestion on the system of local roads and local interchanges (such as OMR, Siempre Viva Road, and La Media Road) due to international border traffic traveling through the Otay Mesa Community. Between Route 125 and Enrico Fermi Drive, the No Project Alternative shows higher traffic volumes along local streets such as OMR, Siempre Viva Road, and Airway Road (see Table 1-6). Higher traffic volumes on local streets will increase congestion and decrease the level of service. The local connector ramp to Enrico Fermi Drive, included in the Freeway and Tollway alignment

alternatives, will have the effect of reducing congestion on OMR, Siempre Viva Road, and Airway Road; the No Project Alternative will not provide this benefit.
Local street widening is proposed as a necessary part of the project to improve local access to Route 905, thereby reducing congestion and facilitating traffic flow on the Mesa. The project proposes the following:

- Widen OMR from two to four lanes between Route 125 and Sanyo Avenue, and
- Widen the uncompleted portion of Sanyo Avenue from two to four lanes between OMR and Airway road.

These proposed improvements to local streets will allow the local street system to function better, and also will compensate for the deletion of Harvest Road between OMR and Airway Road.

Within the Route 905 right-of-way, local streets will also be widened to the City of San Diego street standards. Reconstruction of city streets will be required where the vertical alignment must be changed to accommodate the freeway construction.

1.7 RELATED PROJECTS

State Route 125 South

State Route 125 South (SR-125) between Otay Mesa and Spring Valley is under construction. SR-125 will be a six-lane/eight-lane highway from Route 905 to Route 54, a distance of 18 km (11.2 miles). SR-125 is an important link in the "Outer Loop" freeway system and is included in the adopted SANDAG RTP.

Future State Route 11

State Route 11 (SR-11) has been identified as a proposed transportation facility necessary to provide access between a future border crossing, east of the POE, and the Route 125/Route 905 interchange. Funding for SR-11 has not been identified within the STIP, the project is not yet programmed, and no decision has been made regarding a specific alignment. SR-11 was added to the State Highway System in 1994. The RTP for the year 2020 includes SR-11, stating that it is planned as a four-lane freeway from the planned Route 905/Route 125 interchange to a proposed new border crossing about 3.2 kilometers (2 miles) east of the existing POE.

A need for a third border crossing has been identified by the Federal Government of Mexico and the State of Baja California, as well as state and local agencies, to alleviate existing traffic congestion and to accommodate future traffic anticipated due to population and trade growth. This proposed future border crossing will require a presidential permit application submittal to, and approval of, the Bi-National Committee on Bridges and Border Crossings, in conjunction with Mexican transportation agencies. This future border crossing and the necessary presidential permit will be contingent upon the processing and approval of a National Environmental Policy Act document.

1.8 PROJECT FUNDING

Estimated total costs for the project alignment alternatives are as follows (in millions of dollars):

Freeway - North Alignment Alternative	$309.2
Freeway - Central Alignment Alternative	$308.7
Freeway - South Alignment Alternative	$313.3
Tollway - North Alignment Alternative	$363.9
Tollway - Central Alignment Alternative	$373.1
Tollway - South Alignment Alternative	$374.2

Funding is from the following Programs:

- 1996 and 1998 State Transportation Improvement Program (STIP)
- 1998 Regional Transportation Improvement Program (RTIP)
- 1998 Interregional Transportation Improvement Program (ITIP)
- Transportation Equity Act for the 21st Century (TEA-21) High Priority Projects Program
- 1999 TEA-21 National Corridor Planning and Development Program (NCPD)
- 1999 TEA-21 Coordinated Border Infrastructure Program (CBI)
- Local Funds
- TCRP Governor's Transportation Initiative
- 2000 TEA-21 NCPD/CBI
- 2001 TEA-21 NCPD/CBI
- 2002 TEA-21 NCPD/CBI

Since the adoption of the 1996 RTP, the Route 905 project has attracted much attention from local, state, and federal legislators, which resulted in a significant increase in the funds programmed for the project. Specific legislation in the federal TEA-21 earmarked $54.5 million for the construction of Route 905, and the federal Border and Corridor Infrastructure Program recently provided an additional $7.4 million for the project. These additional federal funds, along with recent allocations from state and local sources, resulted in the programming of 80% of the needed funds for the six-lane freeway project.

To date the proposed project has not identified and secured full funding. The District will continue efforts to secure additional funding from regional, state, and federal resources.